THE PENNY MAGAZINE

OF THE

Society for the Diffusion of Useful Knowledge.

325.] PUBLISHED EVERY SATURDAY. [April 29, 1837.

THE RIVER ST. CLAIR AND THE CHIPPEWAY INDIANS

[Scene on St. Clair River, Upper Canada.]

If the reader glances over a map of North America, his attention will be arrested by that combination of lakes, whose united waters ultimately form the river St. Lawrence. Lake Superior, the true source of the St. Lawrence, is the greatest fresh-water lake on the globe, its surface being only about 7000 miles less than that of England. Its waters are carried off into Lake Huron, which is only second to Lake Superior in extent, by a river called St. Mary's River, or Strait. Lake Huron also receives the waters of Lake Michigan, which is nearly 300 miles long, with an average width of 75 miles. The river St. Clair, which issues from the south point of Lake Huron, carries off the waters of these three inland seas; after running about 30 miles between moderately high banks, it expands into Lake St. Clair, which is only about 30 miles in diameter. Lake St. Clair is connected with Lake Erie, whose circumference is computed at 658 miles, by the river Detroit. Again, Lake Erie is connected with Lake Ontario by the Niagara, on which are the celebrated falls of that name. From Lake Ontario the river commences, though it is not termed the St. Lawrence until it reaches Montreal. The following table gives the course of the St. Lawrence, computing it as flowing through these various lakes until it reaches the sea:—

"If we consider Lake Superior as the true source of the St. Lawrence, the course of the river is between 600 and 700 miles shorter than that of the Mississippi, as the following table shows:—

"Lake Superior, along a curved line drawn through its centre	400
Straits of St. Mary	40
Lake Huron, also along a curved line through its centre	240
River St. Clair	30
Lake St. Clair	30
Detroit River	29
Lake Erie	230
River Niagara	33
Lake Ontario	155
St. Lawrence, up to Cape Roziere	692
	1859 *"

The sketch from which the woodcut at the head of this article has been derived, was taken, as the corre-

* See 'Penny Cyclopædia,' article Canada, in vol. vi.

spondent who supplies it states, a mile below the spot where the river St. Clair issues from Lake Huron. The river forms a boundary between Upper Canada and the territory of the United States. The waters of Lakes Superior, Michigan, and Huron, poured through this narrow channel, flow with considerable velocity, but their force is partly broken by the curves or bends of the river. The vessels in the foreground, and the steamer in the distance, indicate the rapid advance of civilization. A few years ago, steam-boats were unknown on our own rivers, and when they were first started, people ventured into them with something of that tremulous apprehension with which they would now step into the car of a balloon. They are already converting the rivers and lakes of America, which but yesterday, as it were, were only visited by the Indian, into great highways of commerce.

The spot represented by the woodcut has an interest from its being a favourite resort of the Chippeway Indians, even while retreating before the advance of European emigration. Whatever definition we may give of the word "civilization," there can be no dispute that the life of the North American Indian does not come within it. His habits and customs, his state of precarious existence, his alternate indolence and violent activity, are altogether averse to the improvement or permanent happiness of man. Still we cannot but feel a deep interest in the history of so remarkable a race, who, generally speaking, cannot or will not amalgamate with Europeans, and who are falling fast before their power or their vices.

The Crees and Chippeways constitute at present one of the most numerous and most widely-extended of the Indian tribes or nations inhabiting the interior of North America. The Chippeways inhabit the country about Lakes Superior, Michigan, and Huron. It is stated that all the nations which are within the limits of the United States, north of the Ohio, and east of the Mississippi, speak languages which may be considered as only dialects of that spoken by the Crees and Chippeways. The Lennapi, one of these tribes, have a tradition amongst them, that "their ancestors, coming from the westward, took possession of the whole country from the Missouri to the Atlantic, after driving away or destroying the original inhabitants of the land, whom they termed Alligewi. In this migration and contest, which endured for a series of years, the Mengwe or Iroquois kept pace with them, moving in a parallel but more northern line, and finally settling on the banks of the St. Lawrence, and the great lakes from whence it flows."

Speaking of the ground about the river St. Clair, of which the woodcut represents a portion, our correspondent says that some years since, when the Chippeways were selling it to the British government, their predilection for this favoured spot, which contains many graves, where are laid "the bones of their fathers," induced them to reserve for their own use and future occupation, sixteen square miles, besides some smaller reservations down the river. The log huts represented on the left bank of the river belong to them. There are about thirty of these houses here; and the affairs of the resident Indians are managed by a British superintendent, who has a good house; there is also a resident missionary; and among the buildings are a chapel, school-house, and an Indian store-house.

"The Crees, like the other tribes of North America, live upon the produce of the chase and the fisheries in the numerous lakes and rivers by which their country is watered. No kind of agriculture has been introduced among them, as among those tribes that inhabit the southern portions of the United States. This is chiefly to be ascribed to the general sterility of the countries which they inhabit, and partly to the rigour of the climate. Even in the European settlements no attempt to sow and plant has been made north of Carlton House, on the Saskatchewan, and at the latter place only on a small scale. The hardships to which their manner of life frequently exposes them, and the want of food for some weeks together, sometimes compel them to commit cannibalism. Instances of this kind are on record, even of parents having fed on their own children; but these extreme cases are of rare occurrence. They commonly evince a strong affection for their offspring, and bewail for a length of time the loss of their relations.

"Europeans are very little acquainted with the language of the Crees. M'Keevor has added a short vocabulary to his voyage. Dr. Richardson collected a copious and valuable vocabulary, which is still unpublished. Mr. J. Howse, of Cirencester, who was in the service of the Hudson's Bay Company for twenty years, is now preparing, under the sanction of the London Geographical Society, a grammar of the Cree language, which will, we feel confident, throw a new light on the structure of the Cree, and all the cognate languages of the North American continent*."

ON THE WINGS AND TAILS OF BIRDS.

[Continued from No. 329.]

It must be evident that the shape, arrangement, and texture of the feathers composing the wings and tail must materially affect the flight of birds, both as it respects rapidity and peculiar character. Of all birds the swift (*cypselus*) and the humming-birds are the most remarkable for the rapidity of their aërial movements: let us attend to the character presented by their wings.

We are at first struck with the length of this organ in comparison with that of the bird itself; but we see also that its breadth is not in proportion to its length, and that its general form is somewhat like that of a sabre. This, however, is not all; the wing appears to consist exclusively of *primary quill-feathers*, so greatly are these developed, and so small, comparatively, are the *secondaries:* the first *primary quill-feather* is the longest, the others shorten in gradual order, so that the wing is *pointed*. Now we may here observe that a *pointed form* of wing is essential to rapidity of flight; we see this principle exemplified in the true falcon, in the pigeon, in the swallow, the pratincole, birds of great powers of aërial progression. In a pointed wing the first or second quill-feather is always the longest, but sometimes the second and third are equal. In a pointed wing the primaries greatly exceed the secondaries.

To revert, however, to the wing of the humming-bird, there is something in the texture of the feathers composing it, which must not be overlooked. A rapid flight supposes a succession of smart blows upon the air, which it is evident cannot be given by yielding downy plumes. Now the feathers composing the primaries in the humming-bird consist of a thick elastic taper shaft, in some species developed to an extraordinary degree at the base, as in the blue-throated sabre-wing (*Campylopterus latipennis*, Swains.); the vane on each side of the shaft is narrow, firm, and rigid, as if made of a thin plate of burnished metal; this appearance is produced by the minuteness of the plumelets of which the vane is composed, and by their closeness to each other, and the firmness with which they are united together. The wings thus present a firm resistance to the air, and as they are rapidly agitated, produce a humming sound. The wings of the falcon, pigeon, &c., though not composed of feathers so rigid, nor so metal-like in structure as in the humming-bird, are nevertheless very beautifully adapted as it regards the texture

* 'Penny Cyclopædia,' article Crees and Chippeways.

and elasticity of the primaries for velocity; and we may set it down as a rule, that wherever a long and pointed wing is found, the *primaries* will be firm and elastic. The wings of birds of rapid flight are seldom very concave beneath,—on the contrary they are almost flat, when extended; and this flatness, while it contributes to the velocity of motion as the bird sweeps along, destroys the power of a direct upward ascent, which is possessed in far greater perfection where the wings are at once ample and concave. The falcon, in order to soar, is obliged to sweep round in circles, or to fly against the wind, and he thus rises obliquely, on the same principle as is shown in a flat piece of tile, or an oyster-shell thrown smartly against the wind.

Wings somewhat rounded, concave, ample, and composed of stiff and well-formed quill-feathers, while inferior in some points as organs of flight, are superior in others; they enable their possessor to soar with ease, and to sail with graceful freedom in the higher regions of the air. This form of wing is exemplified in the condor: it may be observed, that though the concavity of these ample wings aids in soaring, it obliges the bird in descending to sweep down in a series of gyrations, each circle contracting, till the bird gains the ground.

Where the wings are concave, as in the owl, and composed of lax soft feathers (the whole of the plumage being full and downy), the flight is buoyant, noiseless, wheeling, and differing altogether in character from that of the falcon or swallow. The feathers yield too much, and are too soft to produce any whistling or rushing noise in flight; no rigid edges cut the air, the vanes of the quill-feathers are lax, and the outer edge of the first, instead of being plain, is fringed with a line of short lashes (the prolonged terminations of the plumelets composing the vane), as if to guard against the least possibility of sound being produced by the winnowing of the air.

Concavity of wing, joined with shortness and roundness, is unfavourable to flight. Birds with this form of wing are for the most part terrestrial in their habits; their bodies are heavy, and their great powers reside in the legs: the common fowl or the turkey are examples in point. There are, however, such modifications among terrestrial birds in the structure of the wings as to render some far superior in flight to others. The wings of the common partridge, for instance, are short, round, and concave, and its flight is necessarily short, whirring, and destitute of ease; but, on the other hand, the quail, its immediate ally, in consequence of a somewhat lingering and pointed arrangement of the primaries, possesses, if not great, at least tolerable powers of flight, and is one of our birds of passage.

[Wings of Sparrow, Grosbeak, and Chaffinch.]

The annexed sketches represent the wing of the common sparrow (I.), that of the common grosbeak (II.), and that of the chaffinch (III.). It will be observed that their form is moderately pointed; still, however, the flight of these birds is not remarkable for velocity, for in the first place the extent of wing does not bear that comparative relationship to the size of the body which it does in the falcon, vulture, or swallow; and in the second place the *quill-feathers* are destitute of firmness, the shafts are weak, and the vanes are soft and flimsy; while at the same time the *primaries* but little exceed the *secondaries*, so that the breadth of the extended wing is half, or more than half, of its length.

The crow and rook have ample and moderately pointed wings; the first *quill-feather* is much shorter than the second and third, these being exceeded by the fourth, which is the longest; they are firm and elastic. The flight of these birds is steady, and they sail with ease, often at a very great elevation; and sometimes perform a series of rapid evolutions, wheeling, diving, and as suddenly reascending. Allied to the crow and rook (*Corvus*), the magpie differs materially from them in its mode of flight, and in the figure and proportion

[Wing of the Magpie.]

of its wings. The wing of the magpie is short and rounded; the first quill-feather is narrow, and about half the length of the second; the fourth and fifth, which are nearly of equal length, are the longest in the wing. "Magpies and jays," says White, "flutter with powerless wings, and make no dispatch." The flight of the magpie is supported by short quick strokes.

Some birds have appendages of various kinds to their wings, the uses of which cannot well be accounted for. In the Chinese *jacana*, for instance, the tips of the

[Wing of the Jacana.]

primaries are furnished with slender narrow plumes or appendages proceeding from the extremity of the shaft, as in the preceding cut. The *nightjars* or *goatsuckers* (as they are foolishly termed), a family remarkable for the development of plumes, present us with some singular examples in point. The wing of the Leona *nightjar* (*Caprimulgus macrodipterus*), a native of Sierra Leone, is a good example. From the midst of the wing-coverts issues (on each wing) a long elastic shaft, to the extent of twenty inches, and tipped with a broad web for about five inches. Independently of these appendages, the total length of the bird is about eight inches. The use of these long slender shafts, moved by every breeze, is not easily to be discovered. In another species from Sierra Leone, the ninth quill-feather in each wing is produced to an amazing extent, running narrower as it proceeds, and is soft and flowing; its length is nearly two feet, the eighth quill-feather is about ten inches long, the seventh still shorter; the rest of the primaries are as usual in this *family*, the wing being pointed, and the first the longest of them.

In many birds the *tertials* are produced into pendent plumes of great length, which fall gracefully down, and almost touch the ground, as we see in the *Demoiselle* and the *Stanley cranes*. The *tertials* of the *common crane* also form elegant plumes, each feather drooping with dishevelled barbs; the *tertials* of the *sacred ibis* are also produced into lax plumes. In the *Egret* the *scapularies* are elongated into wavy plumes, the feathers having their vanes composed of long filamentous plumelets or barbules distant from each other. In the cranes, herons, egrets, &c., the wings are long and ample.

Some birds, as we have observed, are very inferior in flight to others, their wings being modified accordingly; but there are not only birds incapable of easy and graceful progress through the air, but there are some which are utterly destitute of the power of flight, even in its lowest degree. There are two conditions of wing connected with the want of this power: first, that in which the wing is *simply undeveloped*, both as respects osseous structure and feathers, and therefore unfurnished with muscles, the presence of which would be useless; secondly, that in which the *wing* is *converted into another and an efficient instrument*, viz., an organ of aquatic progression, an oar for propelling the boat-like body through the water. The first condition is seen in the *ostrich*, *rhea*, *emeu*, *cassowary*, and *apteryx*. The beautiful wavy plumes into which the quill-feathers of the wing of the ostrich are modified, are too well known to need description; but besides these each wing is armed with two short plumeless shafts, resembling the quills of a porcupine. In accordance with the undeveloped structure of the wings of this largest of the feathered race, the skeleton presents certain peculiarities, especially in the form and extent of the *sternum*.

In the *rhea* the plumes of the wings are long and slender. In the *emeu* the wings are so reduced as to be almost invisible, and there are no true quill-feathers in them or in the tail. In the cassowary the pinions are also very small and concealed beneath the plumage of the body: the quill-feathers, however, are represented by five long stiff pointed spires, like those of the porcupine, of black colour and unequal length, the longest being twelve inches, or more. In the *apteryx*, an extraordinary bird peculiar to New Zealand, where it is named kiwi, the wings are so rudimentary as to be discovered with difficulty; they are terminated each by a little *claw*. There is no vestige of a tail.

The example of wings not only incapable of flight, but converted into other instruments, viz., oars for rowing in the water, is seen most fully and completely in the penguin. In this bird and its immediate allies, the feathers of these organs are reduced to a sort of scales; they are small, close, and overlay each other, and the whole wing is an admirable oar. The form and character of these wing-oars will be seen by referring to an article on the penguin in the fifth volume of the 'Penny Magazine,' 1836, p. 417, illustrated by a figure. Without having their feathers so absolutely reduced to scales as to lose their appearance as such, the wings of the great awk (*alca impennis*) are equally incapable of being used in flight, and are equally efficient as oars. Small and stiff, the primaries and secondaries still retain their character; but the whole wing is placed in such a position as to be used with advantage only in the watery element, which is the congenial home of this rare and interesting bird.

The use of the wings as oars is not, however, limited to the penguins and the great awk; though in these birds most certainly the modifications of structure necessary to such a use are carried to their maximum. On the contrary, many birds capable of flight, and of rapid flight, when they have attained to a certain elevation in the air, use their wings in the act of diving. We may instance the *grebes*, and the *divers*, which, in pursuing their finny prey beneath the surface of the water, which they do with astonishing rapidity and perseverance, use their wings to aid their subaquatic progression. The wings of these birds are short, pointed, concave, and composed of stiff oily feathers. The same observations apply to the cormorants, which, as well as the divers, swim ordinarily with the surface of the back, the neck, and head only above the water, and plunge with great address and vigour.

The guillemot, the puffin, and the razor-bill have short concave pointed wings, and their flight, though rapid, is confined to small distances, and is sustained by quickly-repeated strokes. The wings of these well-known birds, so common on the rocky portions of our coast, are also used as oars in diving, which is done with great ease and to long distances. It is not therefore necessary that the wings, when adapted as paddles or oars, should be incapable of sustaining their possessor in the air, but it is to be observed that wings thus adapted, are never such efficient organs of flight as are those of the hawk, the pigeon, the swallow, and sea gull, &c.; and moreover we may trace the declension of the wing into a purely oar-like structure, from the oceanic diving ducks, through the grebes, divers, guillemots, and puffins, till in the *great awk*, and the *penguin family*, it arrives at its ultimatum, and that to the exclusion of flight. Extreme, therefore, is the distance between the wing of the penguin and that of the humming-bird; but while the one is admirable as an organ of *aërial*, the other is equally so as an organ of *aquatic progression*, and between the two is an infinitude of modes and gradations.

[To be continued.]

A LOOKING-GLASS FOR LONDON.—No. XI.

The Court.

The London "season," or winter, was reckoned, during the last century, from about the month of November till that of May. It was regulated, as it is now, by the usual duration of the session of Parliament. Affluent people, who divided their time between London and the country, had less inducement then to absent themselves from the metropolis after the winter had set in, than they have now; and the state of the roads and means of communication rendered it convenient to the legislature to meet before travelling became, if not dangerous, at least very troublesome and annoying. Bath and Tunbridge Wells were fashionable resorts, and spread their attractions to induce their visiters to prolong their stay: but Ramsgate and Brighton were only obscure fishing villages, and Cheltenham was but

[St. James's Street—Drawing-Room at St. James's Palace.]

starting into existence. The inclinations and tastes of the upper classes were much more frivolous than they are now—for he who compares habits and customs cannot fail to remark that, however unequally, *all* classes are moving forwards. We find frequent intimations in the novels and plays of the last century, of the aversion with which the "dull" country was regarded by the fashionables of the time, and their eager longings for the return of the London "season," with its round of heartless dissipation, its balls, and routs, and plays. Now, there is more intellect, more taste, more rational enjoyment of life among the upper classes; and the improvement which has been effected gives us a hopeful earnest of what may still further be accomplished, not only amongst them, but in every rank and grade of society.

During the present century, the commencement of the London "season" has been gradually postponed. Since 1806, the opening of the session of Parliament has been veering from November to January: since 1822, it has almost settled into a rule (unless, of course, when interrupted by anything extraordinary) that it should not be opened till about the month of February, the session extending till July, or the beginning of August. Thus the London "season," or winter, has been thrown into the months of spring and summer.

The "east" and "west" ends of London present a curious contrast with respect to the London season. In the city, trade and commerce flow on in their accustomed channels, unaffected by the vicissitudes of fashion. During the month of August, he who moves in fashionable circles may exclaim, "There is nobody in town!"—an expression which appears ridiculous and affected, amidst the never-ending throngs of Fleet Street or Cheapside. But at that period, in the fashionable streets and squares of the "west end," the expression has force and meaning. There, house after house appears deserted; the windows are closed with funeral-looking shutters; the streets, always more or less stately and quiet, are now silent and lonely; one would think that the inhabitants had fled from the approach of the plague, or of a hostile army. It is then that the haberdashers, and milliners, and tailors, and bootmakers, and artificial florists, not forgetting the "curiosity dealers," and all the other suppliers of the wants and wishes of the wealthy, at the west end, feel that the London season is closed. The tradesmen of Oxford Street, Bond Street, and St. James's, discharge their extra workmen, and their "regular hands" are but half employed. But after August and September have been passed, and October is well nigh gone, the winter trade begins. The inferior grade of the upper classes, who have no estates in the country, and who have been visiting the Highlands, English watering places, or the continent, return to town. At last the new year arrives; Parliament assembles, town houses are occupied, and the hotels are filled. Still it is remarkable how a bleak north-east wind, and a chilling spring, will retard the west-end trade, as well as vegetation. But court DRAWING-ROOMS and LEVEES are announced; the Easter holidays are over; the spring becomes mild and genial; and all becomes bustle and activity.

It would be interesting if we could attain correct statistical information respecting the numbers who arrive in London during the season, and the increase and decrease of west-end trade at different periods of the year. There are more than 400 members of the House of Lords, and the House of Commons is composed of 658 members. If out of this number only 400 bring their families with them to London, and each household (connexions and dependants, exclusive of servants,) is composed, on an average, of but twelve individuals, we have 4800 persons, say 5000, brought to London by the meeting of Parliament. Then, if we allow two families of wealthy individuals for every one family connected with a member of the legislature, with the same number to each household, that will give 9600, making altogether, say 15,000 persons. If the daily expenditure of these 1200 families is 10*l.* each, that will produce 12,000*l.* a day. But this is mere conjecture, and is much less, probably, than the average fashionable expenditure. Perhaps upwards of 50,000 (exclusive of foreigners and temporary visiters) come to London during the "season." Comparing the months of April and May with those of August and September, there is probably a difference of 20,000*l.* a-day in the business transacted by the west-end tradesmen.

Men of rank and wealth used formerly to be waited on in the mornings by crowds of persons, who came to pay their respects, or to solicit favours. Such an assembly was termed a *levée*, from the French; the word, in its original acceptation, implying the idea of waiting on a person after he had risen in the morning. Levées are now only held at Court, and by one or two official persons, such as the Commander-in-Chief, whose levées at the Horse Guards are attended by military men. The King, on a levée-day, previous to its being held, usually receives, in an apartment called the Royal Closet, such individuals as are to be specially presented to him;—ambassadors, who arrive to deliver their credentials, or some letter from their respective sovereigns, and persons who are appointed to official situations. These individuals are conducted, in their turn, to the door of the Royal Closet by the Master of the Ceremonies, who ushers them, and then retires. The King is usually attended by one or more of the Cabinet Ministers. When this is over, the doors of the state apartments are thrown open, and the levée commences, the company marching past the King in the Presence Chamber. To some he addresses a few words, but generally briefly, as it stops the procession. When all have marched past, the company retire. "After the levée," says the 'Court Circular,' in describing one of the late levées, "the Rev. Dr. Longley, bishop of Ripon, was introduced to the King in the Royal Closet, and did homage on his appointment to that see. Lord John Russell, Secretary of State for the Home Department, and the Rev. J. R. Wood, deputy Clerk of the Closet, assisted at the ceremony, at which the Cabinet Ministers and the great Officers of State were present."

A Drawing Room is a much more splendid affair than a Levée, for ladies do not attend levées. The most usual place where levées and drawing-rooms have been held is St. James's Palace. When George IV. inhabited Carlton House he held his levées there; and Queen Charlotte frequently had drawing-rooms in old Buckingham House. But Carlton House has been removed, and its site is now occupied by club-houses, and the fine opening into St. James's Park from Pall-Mall. Old Buckingham House, too, has been pulled down, and in its stead we have Buckingham Palace, which has not yet been occupied by the Royal Family. Drawing-rooms have, therefore, of late years, been held exclusively at St. James's Palace; and though its old brick fortress-looking gateway, facing St. James's Street, gives little promise of grandeur or comfort within, it is expressly stated to be far better adapted for state occasions than new Buckingham Palace.

The best testimony to the effect produced by the ceremonies and observances of the Court, is naturally that of foreigners, to whom they appear in all the freshness of novelty. Thus Paul Hentzer, who visited England in 1598, describes his going to see Queen Elizabeth at Greenwich. "We were admitted," he says, "by an order Mr. Rogers had procured from the Lord Chamberlain, into the Presence Chamber, hung with rich tapestry; and the floor, after the English fashion, strewed with hay [probably rushes], through which the Queen commonly passes in her way to the chapel. At the door stood a gentleman dressed in velvet, with a gold chain, whose office was to introduce to the Queen any person of distinction that came to wait on her: it was Sunday, when there is usually the greatest attendance of nobility. In the same hall were the Archbishop of Canterbury, the Bishop of London, a great many councillors of state, officers of the crown, and gentlemen who waited the Queen's coming out; which she did from her own apartment, when it was time to go to prayers, attended in the following manner:—

"First went gentlemen, barons, earls, knights of the garter, all richly dressed, and bare-headed; next came the Chancellor, bearing the seals in a silk purse between two, one of which carried the royal sceptre, the other the sword of state in a red scabbard, studded with golden *fleurs-de-lis*, the point upwards; next came the Queen, in the fifty-sixth year of her age (as we were told), very majestic; her face oblong, fair, but wrinkled; her eyes small, yet black and pleasant; her nose a little hooked, her lips narrow, and her teeth black (a defect the English seem subject to, from their too great use of sugar); she had in her ears two very rich pearls, with drops; she wore false hair, and that red; upon her head she had a small crown, reported to have been made of some of the gold of the celebrated Lunebourg table; her bosom was uncovered, as all the English ladies have it till they marry, and she had on a necklace of exceeding fine jewels; her hands were small, her fingers long, and her stature neither tall nor low; her air was stately; her manner of speaking mild and obliging. That day she was dressed in white silk, bordered with pearls of the size of beans, and over it a mantle of black silk, shot with silver threads; her train was very long, the end of it borne by a marchioness; instead of a chain she had an oblong collar of gold and jewels. As she went along in this state and magnificence, she spoke very graciously, first to one, then to another (whether foreign ministers or those who attend for different reasons), in English, French, and Italian; for, besides being well skilled in Greek and Latin, she is mistress of Spanish, *Scotch*, and Dutch. Whoever speaks to her it is kneeling; now and then she raises some with her hand. While we were there, William Slawator, a Bohemian baron, had letters to present to her; and she, after pulling off her right glove, gave him her right hand to kiss, sparkling with rings and jewels, a mark of particular favour. Wherever she turned her face as she was going along, everybody fell down on their knees. The ladies of the court followed next to her, very handsome and well shaped, and for the most part dressed in white. She was guarded on each side by the gentlemen pensioners, fifty in number, with gilt battle-axes. In the antechamber next the hall where we were, petitions were presented to her, and she received them most graciously, which occasioned the exclamation of 'God save the Queen Elizabeth!' She answered it with, 'I thancke youe, myne good peupel.'" Hentzer then describes the ceremony of the Queen's dining, which was accompanied by much pomp and state.

Mr. Rush, who was ambassador from the United States at the Court of London from 1817 to 1825, thus describes, in an interesting book which he has written, his first interview with the late George IV., at that time Prince Regent. It was on a levée day, at Carlton House:—

"I arrived before the hour appointed. My carriage having the *entrée*, or right to the private entrance, I went through St. James's Park, and got to Carlton House by the paved way, through the gardens. Even this approach was already filled. I was set down at a side-door, where stood servants in the Prince's livery. Gaining this hall, persons were seen in different costumes. Among them, yeomen of the guard, with halberds. They had hats of velvet, with wreaths round them, and rosettes in their shoes. In the court-yard, which opened through the columns of the portico, bands of music were heard. Carriages, in a stream, were approaching by this access, through the double gates that separate the royal residence from the street. The company arriving this way, entered through the portico, and turned off to the right. I went to the left, through a vestibule, leading to other rooms, into which none went but those having the *entrée*. They consisted of cabinet ministers, the diplomatic corps, persons in chief employment about the court, and a few others, the privilege being in high esteem. Knights of the Garter appeared to have it, for I observed their

insignium round the knee of several. There was the Lord Steward with his badge of office; the Lord Chamberlain with his; also *gold* stick and *silver* stick. The foreign ambassadors and ministers wore their national costumes; the cabinet ministers, such as we see in old portraits, with bag and sword. The Lord Chancellor and other functionaries of the law had black silk gowns, with full wigs. The bishops and dignitaries of the church had aprons of black silk.

"The Prince had not left his apartment. Half an hour went by, when Sir Robert Chester, Master of Ceremonies, said to me, that in a few minutes he would conduct me to the Prince. The Spanish ambassador had gone in, and I was next in turn. When he came out, the Master of the Ceremonies advanced with me to the door. Opening it, he left me. I entered alone. The Prince was standing; Lord Castlereagh by him. No one else was in the room. Holding in my hand the letter of credence, I approached, as to a private gentleman, and said, that it was 'from the President of the United States, appointing me their envoy extraordinary and minister plenipotentiary at the court of his Royal Highness; and that I had been directed by the President to say, that I could in no way better serve the United States, or gain his approbation, than by using all my endeavours to strengthen and prolong the good understanding that happily subsisted between the two countries.' The Prince took the letter, and handed it to Lord Castlereagh. He then said that he would ever be ready on his part to act upon the sentiments I had expressed; that I might assure the President of this, for that he sincerely desired to keep up and improve the friendly relations subsisting between the two nations, which he regarded as so much to the advantage of both."

A scene similar to that represented in the woodcut at the head of this article is thus described by Von Raumur: "From Kensington I walked through the shady gardens to Hyde Park Corner, and then turned from the Green Park to St. James's Park and St. James's Palace. I arrived at half-past two, just in time to see the carriages drive up in honour of William IV.'s birth-day [in 1835]. If 1800 persons, exclusive of those attached to the Court, walked past the King in gala-dresses that day, certainly there were 900 carriages in motion; for on an average there were not more than two persons in each. The horses and carriages were brilliant, the servants in all colours, laced and covered with fringe. They wore breeches and white silk stockings; the footmen had large cocked hats, like those of our military officers, and the coachmen little three-cornered hats, under which peeped forth a bob-wig. Inside the carriages, too, were wigs of all dimensions; but these attracted my attention less than the women, who appeared in the full splendour of nature and of art. As the procession moved on very slowly, and was obliged to make a halt at every tenth step, I took the liberty of moving on in a parallel line, and of keeping by the side of certain carriages which contained the greatest beauties. * * * * An unfortunate hackney-coach, with a dirty coachman, and a still more beggarly foot-boy, had got among these brilliant equipages. Those who were within, whether they were presentables or not, had drawn up the wooden blinds so high that one could not see them."

DIET.

[Concluded from No. 324.]

Drinks.—Of drinks, the cheapest is likewise the best—plain water. Its varieties are numerous, and much is to be said on each; but we must content ourselves with a very brief notice of them.

Distilled water is entirely free from salts and gases, and consequently no precipitate is caused by adding to it nitrate of silver, oxalate of ammonia, or acetate of lead. Hence it is an excellent solvent for many medicines which would be decomposed by common water, but as a drink is insipid and disagreeable.

Almost the same may be said of rain water (collected in an open place) and of snow water. The goîtres so frequent in the valleys of the Alps have often been ascribed to the use of snow water; but as they occur equally in districts where the drink is different, the supposed cause is unsatisfactory.

Boiled water is not so good as fresh, as boiling expels the gases. Some whimsical people boil water to kill the microscopic insects it contains, and others to take off its *rawness*, as they call it; but raw water is probably the most wholesome as well as the most natural of drinks.

Hard water is that which contains a considerable quantity of salts, especially of sulphate of lime, and makes a bad lather. Heberden calls it *impatiens saponis*, intolerant of soap. Though pump or well water, which is commonly hard, is very pleasant, and usually harmless, there is no doubt that water may be so hard as to be injurious. Dr. Prout thinks that it frequently deranges delicate stomachs very considerably, and has a tendency to produce gravel. In such cases where hard water is injurious, and soft water insipid, it might be worth while trying the effect of the latter impregnated with a little carbonic acid gas.

Soda-water should properly be a solution of carbonate of soda in water, with a large excess of carbonic acid gas; the carbonate of soda, however, is often omitted, and it is then reduced to the formula we have just recommended. Dr. Paris remarks, that if the carbonic acid is contained in soda-water, as some suppose, in a liquid form, it will abstract heat from the stomach during its conversion into gas; and thence he deduces the unwholesomeness of soda-water immediately after dinner, when the stomach has need of all its heat. We think it likely, however, that after those over-plenteous dinners which soda-water commonly follows, the glowing stomach may require cooling down to its digesting point—a theory which may form an apology even for ices, at least for water ices. Practice certainly speaks in favour of soda-water on these occasions.

Is it prudent to drink very cold water in very hot weather, when much heated?—It is certainly very pleasant. At Naples everybody does it with impunity*. In North America it is occasionally fatal. Dr. Rush states, that in summer, but seldom unless the heat is above 85°, as many as four or five persons have died in a day from drinking large quantities of cold water. It is probable that in such cases the water acts like a severe blow on the stomach, paralyzing the powers of life, and allowing no time for re-action. Dr. Beck gives references to writers on this subject, and it is remarkable that they are all American.

Wine is, after water, the most ancient of drinks; it has had the good fortune to be praised in verse and prose by the writers of every age and climate; throughout Europe and her colonies it is the favourite beverage of the cultivated classes; and as it agrees with almost every healthy stomach, so is it in most cases of debility the best of tonics. It is to be regretted that in this country, owing to the high duties, and to habits formed when the duties were still higher, the consumption of wine is very small, and consequently the consumption of much less wholesome liquors very great. The preference, too, formerly given to Portuguese wines, by admitting them at a lower duty than those of France, has tended to create an artificial taste for the less wholesome and less agreeable sorts; for we agree with Dr. Henderson, that in making wines, especially red ones, the French excel all mankind. Bentley appears as one of the leaders of the modern English

* 'Penny Magazine,' vol. iii., p. 335.

taste in wine; he is reported to have said that claret would be port if it could. Before the Methuen treaty things were different, and French wines obtained that preference which they will always obtain when there is no bounty on bad taste. The consumption of wine in this kingdom must formerly have been very great. In the household book of the Earl of Northumberland, before quoted, ten tuns and two pipes of Gascony wine are directed to be bought every year!

It would be an interesting question to ask, what becomes of the large quantity of Cape wine unfortunately charged with a lower duty, and annually imported into this country? We have for many years very rarely seen any Cape wine bearing its own name, and are forced to conjecture that it is chiefly employed to mix with better kinds, or to be substituted for them. Strong wines are about half as strong as brandy. Thus, Mr. Brande gives the following as the proportion of spirits per cent. in different liquors. We have selected the strongest samples of Port and Madeira from his list:—

Port	25·83
Madeira	24·42
Brandy	53·29
Rum	53·68
Gin	51·60

Effervescing wines are generally liked, but are far from being generally wholesome; the gouty and the inactive should shun these wines, and especially any excess in them, as they would poison. Mr. Brande says, very justly, "the effervescing varieties of champagne, if not taken in excess, are the most speedily exhilarating of all wines; they soon produce an approach to intoxication, which is very transient, and generally harmless; but, indulged in to any excess, their effects are more than ordinarily pernicious, and they then stand unrivalled in the headach, nausea, sickness, and universal derangement of the system, which they create*." This quick but transient effect of champagne made Curran say, that it gave a run-away rap at a man's head.

Beer is our national drink, and is unquestionably far preferable to spirits; when not drugged, there is really much to be said in its favour. Instead of wasting away the body like spirits, it is rather fattening. Franklin fell into a strange error when he said, that a penny roll must be better than a pint of beer, from its containing more corn. The beer, in truth, after the process of fermentation, cannot be said to contain any corn at all; its nutritive power consists in its ability to stimulate the stomach into digestion; as the Germans would say, its virtue is dynamic, not material. The drink of this country in ancient times was an ale made without hops.

Spirits, to the deep regret of every philanthropist, have, among a large class in this country, supplanted the use of our national drink. It may seem at first a matter of indifference whether a given quantity of alcohol be taken in the form of gin, beer, or wine; thus, as port is one-half the strength of brandy, it may seem indifferent whether we drink a pint of port, or half a pint of brandy. It is not so, however; for in the former case each atom of the alcohol is in chemical combination with a variety of substances which are not present in the spirit. On the other hand, it must be confessed that the prevailing practice of adding spirit to all the coarser wines drunk in this country, modifies, though it does not nullify, the chemical argument. If the scientific reason, therefore, should be thought insufficient, we must be content with the practical difference between the effects produced by them; for the stomach, though in part subject to chemical laws, has also faculties and sensibilities of its own; or, as John Hunter used to say in his lectures,—"Some physiologists will have it, that the stomach is a mill; others, that it is a fermenting vat; others, again, that it is a stewpan; but, in my view of the matter, it is neither a mill, a fermenting vat, nor a stewpan,—but a Stomach, gentlemen;—a Stomach!"

Tea is almost always ill-made. Instead of allowing the water to stand on the leaves for a definite time, and then pouring off the infusion, the water is allowed to remain for an unlimited period—an error which was committed and reprobated when tea was first introduced, as appears from the following passage of Sir Kenelm Digby's 'Cookery' (London, 1669), quoted by Dr. Kitchener:—

"The Jesuit that came from China, A.D. 1664, told Mr. Waller, that to a drachm of tea they put a pint of water, and frequently take the yolks of two new-laid eggs, and beat them up with as much fine sugar as is sufficient for the tea, and stir all well together. He also informed him, that we let the hot water remain too long soaking upon the tea, which makes it extract into itself the earthy parts of the herb; the water must remain upon it no longer than while you can say the *Miserere* psalm very leisurely; you have then only the spiritual part of the tea, the proportion of which to the water must be about a drachm to the pint."

In fact, what Swift says of doubling custom-house duties, that in them two and two do not always make four, may be applied to tea-making: by letting the water remain so long, we do not procure any more aroma from the tea, but merely draw out what the Jesuit called "earthy parts," or chemists now term "bitter extractive matter." The proper time for making infusion of tea is five or six minutes, and it should then be poured off into another pot.

Coffee, *Cocoa*, and *Chocolate* are all stimulating liquors, and feverish patients, or those whose stomachs are irritable from long-continued indigestion, should, generally speaking, abstain from them.

Lemonade is often made unskilfully by pouring boiling-water on sliced lemons, instead of squeezing lemon-juice into water. A strong infusion is thus made of the aromatic peel, counteracting in some degree the refreshing effects of the juice. This erroneous method seems to have arisen from motives of economy when lemons were very dear. A veteran fruiterer once told us that he recollected lemons being half-a-crown apiece, and that a still older dealer monopolized lemons during a period of the American war, and sold them at 5*s.* each.

Salt, if not an article of food, is one without which food is of little use; it is necessary for health, and perhaps for life. It was once a punishment in Holland to condemn criminals to live without salt, and they were dreadfully infested with worms in consequence. "Dr. Dyer informs us, from his personal experience, that in the Mauritius the planters' slaves rarely obtain salt, and are extremely subject to worms; while the government slaves and the convicts get salt in their rations, and seldom suffer from the disease. Some planters regarding economy and the health of the slaves at the same time, give a table-spoonful of salt in half a pint of water to each slave regularly every Saturday after work; and they find that this dose acts not only as a vermifuge, but as a tonic*."

Too much salt, however, may be, and frequently is, taken, not only in the shape of salted provisions, but otherwise. Thus among his eccentricities, Dr. Stark at one time took twelve drachms of salt a day; but he left it off on Sir John Pringle's supposing that it was the cause of a scorbutic state of the gums, under which he laboured.

* 'Manual of Pharmacy,' p. 171.

* 'Table-Talk,' vol. i., p. 291.

*** The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.

LONDON: CHARLES KNIGHT & CO., 22, LUDGATE STREET.

Printed by William Clowes and Sons, Stamford Street.